

# Author index

- Abe, M. 30  
Acton, R.T. 166  
Ahrén, B. 333  
Akanuma, Y. 44  
Albarran, R. de 89  
Alberti, K.G.M.M. 392, 420  
Albrecht, G. 315  
Amorosa, L.F. 355  
An, T. 449  
Andersen, A.R. 361  
Aro, A. 453  
Artal, R. 65  
Asmal, A.C. 20  
Asp, N.-G. 272  
Asplin, C.M. 203  
Assal, J.-Ph. 255
- Baba, S. 379  
Bach, F.H. 415  
Baird, H.R. 127  
Baldissera, F.G.A. 223  
Balkau, B. 39  
Barbosa, J. 170, 415  
Barger, B.O. 166  
Barr, D. 266  
Barradas, M.A. 89  
Barry, P.J. 173  
Baynes, J.W. 93  
Becker, K. 282  
Bennett, P.H. 127  
Bennion, L.J. 127  
Berger, M. 441  
Betterle, C. 431  
Billaudel, B. 76  
Birtwell, A.J. 261  
Boberg, M. 272  
Bompiani, G.D. 426  
Bonde-Petersen, F. 328  
Bottazzo, G.F. 241  
Boulton, A.J.M. 15  
Bretzel, R.G. 169  
British Multicentre Study Group 109  
Bruining, G.J. 24  
Bruining, H.A. 24  
Budowle, B. 166  
Burge, C.T.R. 261  
Burnstock, G. 81  
Businger, J. 278  
Byrne, E. 250
- Cagliero, E. 218  
Campbell, I.W. 437  
Capito, K. 375  
Cerasi, E. 142, 146  
Chavers, B. 415  
Chisholm, D.J. 208  
Christensen, N.J. 328  
Clarke, B.F. 437  
Cobelli, C. 314  
Colle, E. 310  
Collier, G. 50  
Cook, D. 420  
Corrall, R.J.M. 445  
Corrigan, C.B. 333
- Creutzfeldt, W. 441  
Crockett, M. 81  
Cudworth, A.G. 15
- Damoiseaux, P. 255  
Dandona, P. 89  
Davidson, M.B. 473  
Davies, C.J. 261  
Deckert, T. 361  
Deleers, M. 55  
Dorman, T.L. 199  
Douglas, C.A. 266  
Drury, J. 15  
Duner, E. 314  
Dyrberg, T. 159
- Ebert, R. 441  
Eichler, H.G. 278  
Eisele, S.G. 60  
Ejiri, K. 379  
Elliott, R.B. 297  
Engle, M.J. 60  
Enzmann, F. 169  
Eriksson, C.J.P. 34  
Etzwiler, D. 415
- Fält, K. 282  
Falkmer, S. 282  
Farrell, P.M. 60  
Faure, A. 76  
Federlin, K. 169  
Feingold, K.R. 234  
Fischer, U. 315  
Flock, E.V. 127  
Foster, D.M. 349  
Foulis, A.K. 456  
Francis, A.J. 420  
Franetzi, M. 169  
French, R.R. 466  
Frenckell, R. von 229  
Frøkjær Thomsen, O. 361  
Fujii, S. 379
- Gagliardino, J.J. 290  
Galluzzo, A. 426  
Gambhir, K.K. 89  
Gasic, S. 278  
Gechter, F. 150  
Gelsthorpe, K. 266  
Genovese, S. 116  
Gepts, W. 282  
Giordano, C. 426  
Girard, J. 103  
Go, R.C.P. 166  
Goldstein, D.E. 214  
Gómez Dumm, C.L. 290  
Gagnoli, G. 411  
Green, A. 190, 195  
Greniman, M. 328  
Greten, H. 366  
Groop, L. 34  
Gustafsson, I.-B. 272
- Hadden, D.R. 250  
Häring, H.U. 462  
Haffner, S.M. 349  
Hage, C. 142  
Hagura, R. 44  
Hahn, C. 255  
Hammond, M.G. 20  
Hanning, I. 266, 420  
Hansen, B. 169  
Hansen, J.A. 199  
Harano, Y. 343  
Hardisty, C.A. 15  
Hari, J. 379  
Harley, J.M.G. 250  
Hashimoto, N. 449  
Hasslacher, Ch. 150  
Haven, A.J. 81  
Hazzard, W.R. 349  
Hedekov, C.J. 375  
Heding, L.G. 261  
Heine, R.J. 420  
Hellerström, C. 393  
Hellqvist, L.N.B. 370  
Henriksen, T. 218  
Hernández, R.E. 290  
Heyburn, P. 261  
Hidaka, H. 343  
Hillson, R.M. 6, 122  
Hilsted, J. 328  
Hockaday, T.D.R. 6, 122  
Hollander, P.M. 203  
Holst, J.J. 223  
Hougaard, P. 190  
Howell, S.L. 319  
Hutson, J.C. 155  
Hutton, R.A. 89  
Huupponen, R. 34  
Hyosu, T. 343
- Ikeda, Y. 30  
Imamura, Y. 379  
Ishihara, K. 379  
Ito, H. 134
- Jarrett, R.J. 99, 401  
Joffe, S. 65  
Johansen, K. 180, 406  
Johnston, C. 1  
Jones, I.R. 261  
Jovanovic, L. 214  
Jutzi, E. 315
- Kadowaki, T. 44  
Kahn, C.R. 229  
Kajinuma, H. 44  
Kanatsuka, A. 449  
Karlström, B. 272  
Kashiwagi, A. 343  
Kataoka, K. 30  
Kazumi, T. 379  
Keen, H. 401  
Keller, U. 103  
Kemmler, W. 462  
Kemnitz, J.W. 60  
Kennedy, L. 93
- Kerner, W. 169  
Khachadurian, A.K. 355  
King, H. 39  
Kirsch, D. 462  
Kohner, E.M. 173  
Korhonen, T. 453  
Korn, A. 278  
Kosaka, K. 44  
Kosugi, K. 343  
Kraegen, E.W. 208  
Krone, W. 366  
Kühn-Velten, N. 300  
Kuntschen, F. 255  
Kushwaha, R.S. 349  
Kuzuia, N. 44
- Lager, I. 337  
Larkins, R.G. 304  
Lear, S.R. 234  
Lernmark, Å. 159  
Levy, J. 142  
Lewin, I.G. 445  
Lincoln, J. 81  
Lindeman, J. 24  
Lindsay, K.A. 60  
Lithell, H. 272  
Lørup, B. 180  
Lorenzi, M. 218  
Ludvigsson, J. 138  
Luzio, S. 261
- Mackintosh, D. 401  
Makino, H. 449  
Malaisse, W.J. 55  
Mancini, M. 116  
Mari, A. 314  
Markey, B. 218  
Marliss, E.B. 159  
Marner, B. 24  
Martin, J.M. 297  
Maruyama, T. 30  
Massi Benedetti, M. 169  
Mastranzo, P. 116  
Mathiesen, E.R. 406  
Matsuba, I. 30  
Matsuki, S. 30  
McAuley, R.R. 250  
McClure, G. 250  
McCulloch, D.K. 437  
McLean, A. 50  
Michael, A.F. 415  
Miyake, Y. 44  
Molenaar, J. 24  
Mollo, F. 314  
Monciotti, C.M. 431  
Morgan, M.H. 445  
Morita, I. 134  
Moser, A.H. 234  
Müntefering, H. 282  
Murota, S. 134
- Nagulesparan, M. 127  
Nakhoda, F. 159  
Navulescu, I. 169  
Nerurkar, S.G. 89

- Nesher, R. 142, 146  
 Newton, D. J. 122  
 Niederau, C. 441  
 Nørgaard, M.-B. 328  
 Nosadini, R. 314  
  
 Ørskov, H. 420  
 O'Brian, I. A. D. 445  
 O'Dea, K. 50  
 Omar, M. A. K. 20  
 Osegawa, M. 449  
 Owens, D. R. 261  
 Oxenbøll, B. 406  
  
 Pacioni, D. 116  
 Palmer, J. P. 199, 203  
 Parving, H.-H. 328  
 Pedini, B. 431  
 Pelkonen, R. 34  
 Penttilä, I. 453  
 Perelman, R. H. 60  
 Permet, A. 255, 420  
 Peterson, C. M. 214  
 Pfeiffer, E. F. 169  
 Pirson, W. 278  
 Ponchner, M. 420  
 Poussier, P. 159  
 Prescott, R. J. 437  
 Presotto, F. 431  
 Pyke, D. A. 1  
  
 Raghu, P. K. 199  
 Rahier, J. 282  
 Raper, L. R. 39  
 Rapp, L. B. 431  
 Raptis, S. 169  
  
 Raskin, P. 214  
 Re, C. A. 304  
 Rebolledo, O. R. 290  
 Reeves, W. G. 266  
 Reichenbacher, R. 150  
 Renold, A. E. 255  
 Rhodes, C. J. 370  
 Riccardi, G. 116  
 Rich, S. 170  
 Rigon, F. 431  
 Rinninger, F. 462  
 Rivellese, A. 116  
 Roberts, A. P. 389  
 Roseman, J. M. 166  
 Rubino, G. 426  
 Ruderman, N. B. 355  
 Ryall, R. G. 389  
  
 Saito, Y. 134  
 Salzsieder, E. 315  
 Sampietro, T. 218  
 Sandahl Christiansen, J. 361  
 Sandler, S. 386  
 Sarlund, H. 453  
 Savage, P. J. 127  
 Schenck, H. von 337  
 Schermer, R. 300  
 Schneider, S. H. 355  
 Schnell, H. 103  
 Seemayer, T. A. 310  
 Semino, M. C. 290  
 Shamoon, H. 183  
 Sherwin, R. 183  
 Shigeta, Y. 343  
 Shii, K. 379  
 Siegel, E. 441  
  
 Signorini, A. M. 411  
 Sims, E. A. H. 88  
 Skene, A. 266  
 Smith, U. 337  
 Sodoyez-Goffaux, F. 229  
 Sodoyez, J. C. 229  
 Solander, F. 195  
 Sperling, M. A. 65  
 Spiro, M. J. 70  
 Staib, W. 300  
 Starke, A. 441  
 Stauffacher, W. 103  
 Stewart, J. A. 456  
 Story, C. J. 389  
 Stremmel, W. 441  
 Strohmeyer, G. 441  
 Sutter, B. Ch. J. 76  
 Suzuki, M. 328, 343  
 Suzuki, T. 449  
 Svendsen, P. Aa. 180, 406  
  
 Takahashi, R. 134  
 Takaku, F. 44  
 Takei, I. 30  
 Tanganelli, I. 411  
 Taniguchi, H. 379  
 Taniyama, M. 30  
 Tattersall, R. B. 266  
 Taylor, K. W. 370  
 Taylor, R. 392  
 Thams, P. 375  
 Timpl, R. 150  
 Treves, S. 229  
 Trimble, E. R. 255  
 Trotter, I. 250  
  
 Tsuruoka, A. 30  
 Tuch, B. 142  
 Tuk, C. W. 24  
 Tuunainen, A. 453  
  
 Uno, S. 343  
 Uusitupa, M. 453  
  
 Vasquez, B. 127  
 Veroni, M. C. 304  
 Vessby, B. 272  
 Viberti, G. 401  
  
 Waldhäusl, W. 12, 169  
 Waldman, L. 146  
 Ward, J. D. 15  
 Weinberg, C. R. 199  
 Wells, L. 266  
 Werner, I. 272  
 Werther, G. A. 65  
 Wiles, P. G. 1  
 Wilson, R. M. 266  
 Wiseman, M. 401  
 Witztum, J. L. 218  
 Wolf, E. 15  
 Worth, R. C. 15  
  
 Yaso, S. 379  
 Ylikahri, R. 34  
 Yokono, K. 379  
 York, D. A. 466  
 Young, R. J. 437  
  
 Zanette, F. 431  
 Zimmet, P. 39

# Subject index

Key: c = correspondence, r = review

- A cell, pancreatic – glucose regulation 203
- Adenine nucleotide metabolism in diabetes 89 c
- Adenylate cyclase – enhancing factor from mouse pancreas 375
- regulation in adipocyte membrane – ob/ob mice 466
- Adrenergic innervation – diabetic rat 81
- AIDSPIT – workshop report 169
- Albumin deposition – in dermal capillary basement membrane 415
- Aldose reductase inhibitor – in symptomatic diabetic neuropathy 445
- $\alpha$ -amylase inhibitor – effect on post-prandial glucose 278
- Androgen binding protein – streptozotocin diabetes – rat 300
- Apolipoprotein B – catabolism in Type 1 diabetes 349
- Arachidonic acid – platelet phospholipid – Type 2 diabetes 134
- Artificial insulin delivery systems – workshop 169
- Artificial pancreas – see glucose clamp
- $\beta$ -adrenergic blockade – Type 1 diabetes 183
- B-cell damage in diabetic insulinitis 241 r
- function – insulin antibodies in diabetic children 138
- function – review 393 r
- Basement membrane collagen – UDP-galactose – diabetic rat 70
- glomerular – type IV collagen – rats 150
- British multicentre study group – proliferative retinopathy – Xenon arc 109
- Calcium – distribution in B cells 290
- Chlorpropamide – its role in determining CPAF 34
- Chlorpropamide alcohol flush – see CPAF
- Cholesterol synthesis – Chinese hamsters – ob/ob mice – db/db mice 234
- Cholinergic innervation – diabetic rat 81
- Coronary artery disease – Type 2 diabetes 99 r
- CPAF – a critical reappraisal 6 r
- role of chlorpropamide, alcohol and acetaldehyde 34
- to flush or not to flush? 12 r
- the case in favour 1 r
- CSII – kinetic modelling studies 208
- Diet – cereal fibre in Type 2 diabetes 272
- Dietary fibre – and carbohydrate – metabolic control in diabetes 116
- protein – a trigger of insulin-dependent diabetes in BB rat 297
- Dimethyl urea – protection against hyperglycaemia 386
- Epidemiology – diabetes in Tanzania 333
- impaired glucose tolerance in Naura 39
- mortality in insulin-treated diabetes – Denmark 190
- use of hospital services by insulin-treated diabetics 195
- Erythrocyte 2,3-bisphosphoglycerate in Type 1 diabetes 389
- Exercise – control in Type 2 diabetes 355
- Exocrine pancreas – autopsy findings in Type 1 diabetes 456
- Experimental diabetes – glomerular basement membrane – type IV collagen 150
- Factors governing the human immune response to injected insulin 266
- Fibre, cereal – Type 2 diabetes 272
- Gastrin response – in patients with vagal neuropathy 445
- GIP – effect of fat and carbohydrate ingestion on response 50
- Gliquidone – extrapancreatic actions – rat 462
- Glucagon deficiency associated with hypoglycaemia 473 c
- infusion – in Type 1 diabetes 337
- related peptides in the human gastrointestinal mucosa 223
- Glucose clamp – and manual technique for assessing insulin sensitivity 420
- Glucose tolerance – natural history in Naura 39
- risk factors for worsening to diabetes 44
- Glucose utilization – opiates – dog 65
- Glycosuria – renal threshold in Type 1 diabetes 180
- Glycosylation, non-enzymic – chronic diabetic complications 93 r
- Growth hormone – ketone body kinetics 103
- Guar gum – metabolic response in Type 2 diabetes 453
- Haemoglobin, glycosylated – evaluation of assays 214
- HLA-A, B, C and D in South African blacks – Type 1 diabetes 20
- seasonal patterns of diagnosis of Type 1 diabetes 199
- How does glucose regulate the human pancreatic A cell in vivo? 203
- Human endothelial cells – interaction with LDL and glucose 218
- Hyperinsulinaemia – non-cirrhotic haemochromatosis 441
- Hyperproinsulinaemia in cirrhosis 392
- Hypoglycaemia –  $\beta$ -adrenergic blockade in Type 1 diabetes 183
- insulin induced – haemodynamic changes in normal man 328
- persistent neonatal – B and D cells 282
- Immune response to injected insulin 266
- Impotence – natural history in diabetic men 437
- Insulin action – opiates modulate in dogs 65
- antibodies – B cell function in diabetic children 138
- degradation – impaired in non-cirrhotic haemochromatosis 441
- internalization in human erythrocytes 89 c
- receptor – in vivo imaging and quantitative analysis 229
- regulation of sterol synthesis 366
- release – sulphonylurea binding – artificial phospholipid layer 55
- suppression of arginine effect by hyperglycaemia 142
- resistance – insulin concentration in Type 1 diabetes 255
- secretion – a review 319 r
- adrenal interference after oestradiol treatment 76
- calcium distribution in B cells 290
- islet-activating protein 304
- sensitivity – and co-ingestion of fat and carbohydrate 50
- Insulin, isophane – studies in normal subjects 261
- Insulin, subcutaneous – estimated absorption using mathematical model 315 c
- reply from the authors 315 c
- Insulinitis – autopsy findings in newly diagnosed Type 1 diabetes 456
- Islet activating protein – insulin secretion – NZO mouse 304
- Islet cell antibody – review 241 r
- time course and characteristics – childhood diabetes 24
- Islet cell surface antibody – cell mediated cytotoxicity to human pancreatic B cell 30
- precede spontaneous diabetes in BB rat 159
- Islet transplantation – workshop 169
- Ketone bodies – in Type 1 diabetes 343
- LDL, native and glycosylated – interaction with human endothelial cells 219
- Lipolysis – ketone body kinetics and growth hormone 103
- Lymphocyte antibody – precede spontaneous diabetes in BB rat 159
- Mechanism of insulin secretion 319 r
- Menstrual cycle – changes in food intake – diabetic Rhesus monkey 60
- Monoclonal antibody to islet cell surface antigens 379
- Natural history of impotence in diabetic men 437
- Nephropathy, diabetic – incipient in Type 1 diabetes 406
- long-term Type 1 diabetes 361
- Neuropathy, autonomic
- early hormonal changes – rat 81
- impotence in diabetic men 437
- vagus and gastrin response 445
- Neuropathy – genetic and metabolic studies 15
- use of aldose reductase inhibitor 445
- vibration sense and hyperglycaemia 122
- Non-enzymic glycosylation and the chronic complications of diabetes 93 r
- NPH insulin – studies in normal subjects 261

- Oestradiol treatment – adrenal interference of insulin secretion 76
- Opiates – modulation of insulin action – dogs 65
- Organ specific auto-immunity – in Type 1 diabetic families 431
- Paediatric immunology 316
- Pancreatic B cell – life story of 393 r
- Pancreatic cellular infiltrates – New Zealand black mice 310
- Photocoagulation – prevention of blindness 173 r
  - Xenon arc in proliferative retinopathy 109
- Pregnancy, diabetic – changes in food intake – Rhesus monkey 60
- Prevention of blindness in diabetic retinopathy 173 r
- Proteinuria – sustained reduction in Type 2 diabetes 127
- Renal threshold – for glucose in Type 1 diabetes 180
- Retinopathy, proliferative – photocoagulation using Xenon arc 109
  - prevention of blindness 173 r
- Sertoli cells – altered response under simulated diabetic condition 155
- Sorbibil – use in diabetic neuropathy 445
- Subcutaneous insulin infusion – kinetic modelling studies 208
- Sugar nucleotides – effect of diabetes – rat 70
  - binding to an artificial phospholipid layer 55
- Sulphonylurea – extrapancreatic actions of Gliquidone 462
- T lymphocyte subset – in newly diagnosed Type 1 diabetes 426
- Time-dependent inhibition of insulin release 142, 146
- Trestatin –  $\alpha$ -amylase inhibitor 278
- Type 1 diabetes – apolipoprotein catabolism 349
  - arterial pressure and micro-albuminuria 401
  - auto-immunity in probands and relatives 431
  - autopsy results on newly diagnosed children 456
  - $\beta$ -adrenergic blockade 183
  - cell-mediated cytotoxic islet cell surface antibody 30
  - complement component C4 in black Americans 166
  - deposition of albumin in dermis 415
  - erythrocyte 2,3-bisphosphoglycerate 389
  - genetic heterogeneity 170 c
  - glucagon infusion 337
  - glycosylation of urinary proteins 411
  - health of children of diabetic mothers 250
  - HLA heterogeneity and season 199
  - HLA in South African blacks 20
  - incipient nephropathy 406
  - insulin resistance and plasma insulin concentration 255
  - insulinitis 241 r
  - ketone bodies as markers 343
  - monoclonal antibody probe – mouse 379
  - nephropathy 361
  - newly diagnosed, and T subset lymphocyte deficiency 426
  - renal threshold for glucose 180
  - Type 2 diabetes – arachidonic acid and platelet phospholipid 134
  - coronary artery disease – chicken or egg! 99 r
  - effect of  $\alpha$ -amylase inhibitor 278
  - exercise and control 355
  - hyperglycaemia and vibration sense 122
  - metabolic response to breakfast and guar gum 453
  - progression from glucose intolerance 44
  - proteinuria reduction and hyperglycaemia 127
  - UK therapy study 88 c
- Type IV collagen – and glomerular basement membrane – rats 150
- UDP-galactose – diabetes – rat 70
- Urinary albumin excretion – Type 1 diabetes 401
- Urinary protein glycosylation – Type 1 diabetes 411
- Viruses – diabetes and encephalomyocarditis virus 370
- Workshop report – artificial insulin delivery systems 169
  - pancreas and islet transplantation 169

